

# Energy consumption and economic growth in Turkey during the past two decades

Mustafa Balat\*

*Sila Science, University Mahallesi, Trabzon 61000, Turkey*

Received 28 May 2007; accepted 28 August 2007

Available online 22 October 2007

## Abstract

The Turkish economy has undergone a transformation from agricultural to industrial, enhanced by rapid urbanization, especially after 1982. Turkey's gross national production has grown at an average annual rate of 5% since 1983, ranking it at the top of the OECD countries, although the growth pattern has been uneven. Economic growth in recent years has been associated with the privatization of public enterprises. Turkey's energy demand has risen rapidly as a result of social and economic development. The country's energy consumption has grown considerably since the beginning of the 1980s. The Turkish government encourages foreign and Turkish private sector investors to implement the energy projects and is currently working on a new investment model for the construction of new generation plants to create the additional capacity needed. The Turkish energy sector, with its current size of 30 billion US dollars and projected size of 55 billion US dollars by 2015, as well as the fundamental restructuring process it has been going through since 2001, attracts both local and foreign investors. The sector needs an investment amount of approximately 130 billion US dollars by 2020. The aim of the present paper is to investigate the increasing of Turkish energy demand with the growth of the economy and utilization of domestic energy sources and the case of investments and imports in Turkey during the past two decades.

© 2007 Elsevier Ltd. All rights reserved.

*Keywords:* Economic growth; Energy consumption; Investment

## 1. Introduction

In the developing countries, energy consumption has risen rapidly as a result of economical growth in recent years. With its emerging and rapidly growing economy and with a population of 73 million people, Turkey has today become the world's 17th largest economy. Turkey's energy demand has risen rapidly as a result of social and economic development. Turkey's national energy policies are designed to provide the required energy on a timely, reliable, cost-effective, environment-friendly and high-quality basis so as to serve as the driving force of development and social progress (Tunç et al., 2006). The government focused its effort on improvement in domestic production by utilizing public, private and foreign utilities and increasing efficiency by rehabilitation and acceleration of existing construction programs to initiate new investments

(Tütünlü et al., 1998). The country's energy strategy is aimed at satisfying demand without preventing economic growth. In order to meet this strategy, energy management, national utilization and energy conservation were also adopted as other elements of the national energy policy along with enhanced recovery of domestic sources (Hepbasli and Ozgener, 2004a).

## 2. Economic development

The Turkish economy has undergone a transformation from agricultural to industrial, enhanced by rapid urbanization, especially after 1982 (Ediger and Huvaz, 2006). Turkey's gross national production (GNP) has grown at an average annual rate of 5% since 1983, ranking it at the top of the OECD countries, although the growth pattern has been uneven. The recession in 1994, when the GNP fell a record 6%, brought to an end 13 years of positive growth (USSD, 1999). As shown in Table 1, the economy rebounded with 8.0% GNP growth in 1995, 7.1% in

\*Tel.: +90 462 871 3025; fax: +90 462 871 3110.

E-mail address: mustafabalat@yahoo.com

Table 1  
Turkey's gross national production between the years 1983–2005 (Turkish Treasury, 2006a)

	GNP (billion US\$)	GNP per capita (US\$)	GNP growth rate (%)
1983	60	1264	4.2
1984	59	1204	7.1
1985	67	1330	4.3
1986	75	1462	6.8
1987	86	1636	9.8
1988	90	1684	1.5
1989	108	1959	1.6
1990	151	2682	9.4
1991	150	2621	0.3
1992	158	2708	6.4
1993	179	3004	8.1
1994	132	2184	6.1
1995	171	2782	8.0
1996	184	2927	7.1
1997	193	3019	8.3
1998	205	3147	3.9
1999	186	2811	-6.1
2000	201	2987	6.3
2001	144	2102	-9.5
2002	182	2623	7.9
2003	239	3383	5.9
2004	299	4172	9.9
2005	361	5008	7.6

1996 and 8.3% in 1997. In 1998, growth appeared to be slowing significantly mainly due to a contraction in private consumption and investment. The GNP growth rate was realized as 3.9% (DTM, 1999). During the period 2002–2005, real gross domestic product (GDP) grew by 33.6% on a cumulative basis and 7.5% on average, making the Turkish economy one of the fastest-growing economies in the world (Turkish Treasury, 2006a). Turkey was the world's fastest-growing country in 2004, a year in which GNP increased 9.9% (Yilmaz, 2006) and reached 299 billion US dollars. After the historical levels recorded in 2004, GDP and GNP rose by 7.4% and 7.6%, respectively in 2005, which were far beyond the targets and forecasts. Moreover, Turkey's per capita GNP has risen above 5000 US dollars in 2005 for the first time ever (Turkish Treasury, 2006a). GNP grew from 182 billion US dollars in 2002 to 361 billion US dollars in 2005 (Table 1). With its performance in 2005, Turkey has become the 22nd largest exporter and 14th largest importer country and recorded one of the highest export growth rates in the world. Exports in 2005 amounted to 73.3 billion US dollars, breaking all records in the history of the country (TAIK, 2006a). Tables 2 and 3 show main economic indicators of Turkey in 2005 and sectoral distribution of GDP during 2000–2005, respectively.

In May 2005, the IMF Board approved Turkey's new 3-year IMF stand-by credit facility of 10 billion US dollars. The new macroeconomic program backed by the stand-by aims to place Turkey firmly on a path of robust growth,

Table 2  
Main economic indicators of Turkey in 2005 (Turk Eximbank, 2006)

GDP (billion US\$)	361.5
GDP growth rate (%)	7.4
Per capita income (\$)	5,016
Inflation (%) (CPI) <sup>a</sup>	7.7
Unemployment rate (%)	10.3
Domestic debt stock (billion US\$)	182.4
Foreign debt stock (billion US\$)	171.1
Total net public sector debt/GDP (%)	55.3
Exports (billion US\$)	73.5
Imports (billion US\$)	116.6
Exports/imports (%)	63.0
Foreign trade balance (billion US\$)	-43.1
Current account balance (billion US\$)	-23.1
Current account balance/GDP (%)	-6.4
Gross international reserves (billion US\$)	75.1

<sup>a</sup>Consumer price index.

Table 3  
Sectoral distribution of GDP (%) (EUSG, 2006)

	2000	2001	2002	2003	2004	2005
GDP	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture	13.4	13.6	13.4	12.4	11.6	11.4
Industry	28.4	28.4	28.8	29.3	29.4	29.2
Services	58.2	58.0	57.8	58.3	59.0	59.4

with a sustainable external current account and low inflation. It assumes that economic growth moderates to around 5% for the following 3 years. With tight fiscal policy, the government expects growth to be led by increased investment and exports (Turk Eximbank, 2006).

Economic growth in recent years has been associated with the privatization of public enterprises (Balat, 2005a). The principles, procedures, authorized agencies and other issues regarding privatization are all set out in the Privatization Law No. 4046, dated 1994. The aims of this Law are as follows: (1) expanding the scope of assets to be privatized, (2) providing adequate framework, funds and appropriate mechanisms to speed up the privatization and restructuring processes, (3) establishing a social safety net for workers who lose their jobs as a result of privatization, and (4) establishing the Privatization High Council and the Privatization Administration to facilitate the decision-making process in the privatization endeavor (OIB, 2005). Up to now, Turkey has realized privatization implementations amounting to 24.9 billion US dollars within the scope of the privatization program. As shown in Fig. 1, 8.2 billion US dollars of this total belongs to the implementations realized in 2005 (Turkish Treasury, 2006b). Privatization receipts amounted to about 2.8% of GDP in 2005. The largest privatizations included the TUPRAS (Turkish Petroleum Refineries Corporation) oil refinery and the steel and iron producer Erdemir. The privatization of Turk Telekom has been finalized. Delays in the privatization of electricity distribution were incurred.

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات